

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 10/564934 Confirmation No. 5171  
Applicant : Jean-Marie Poulet et al.  
Filed : January 13, 2006  
TC/A.U. : 1796  
Examiner : Bijan Ahvazi  
Title : USE OF YTTRIUM, ZIRCONIUM, LANTHANUM, CERIUM,  
PRASEODYMIUM AND/OR NEODYMIUM AS  
REINFORCING AGENT FOR AN ANTICORROSION  
COATING COMPOSITION  
Docket No. : CRE-17902  
Customer No. : 040854

Declaration Under 37 CFR §1.132

I am an inventor named in the above captioned patent application. I hereby declare the following:

1. I have experience and expertise in the field of coatings and coating compositions. In particular, I have expertise in the field of anticorrosion coatings for metal parts.

2. I reviewed the above captioned application for patent, and most recently, also reviewed the latest version of claims as currently pending. The anticorrosion coating compositions for metal parts as now claimed in independent claim 11 include 0.5% to 10% by weight of a reinforcing agent for the anticorrosion properties of the composition selected from the group consisting of yttrium, zirconium, lanthanum, cerium, praseodymium and neodymium, in the form of oxides.

3. The use of the claimed reinforcing agents in the form of oxides leads to significantly improved anticorrosion properties. For example, the testing results presented in Table 10 in the above captioned application demonstrate that the addition of yttrium oxide, cerium oxide, lanthanum oxide, praseodymium oxide, neodymium

oxide, or zirconium oxide to coating compositions significantly increases the polarization resistance of the coatings, thereby indicating that the corrosion resistance of the coatings will likely be increased. The results presented in Table 11 demonstrate the significant increase in resistance to salt spray as a result of the use of the oxide forms of these reinforcing agents.

4. Based upon my experience and expertise in the field of anticorrosion coatings, the increase in anticorrosion properties and resistance to salt spray of the presently claimed coating compositions is due to the use of the oxide forms of the reinforcing agents. The noted increases are surprising and unexpected.

5. I reviewed International Publication No. WO 02/38686 to Maze et al. I am very familiar with the subject matter described in the '686 publication to Maze et al. since that subject matter and the present application are commonly owned by NOF METAL COATINGS EUROPE of France. The cited publication to Maze et al. does not describe any of the particular reinforcing agents as now set forth in the claims of the present application.

6. I reviewed United States Patent Application Publication No. 2002/0142611 to O'Donnell et al. That document describes a ceramic coating system that is very different from the anticorrosion system according to the claims in the present application which uses a particulate metal oxide which sacrifices itself in favor of the metal parts to be protected. The ceramic material described by O'Donnell et al. includes as a major component, cerium oxide. Cerium oxide or oxides constitute the single largest constituent of the ceramic material. The ceramic material described by O'Donnell et al. is not aqueous and it is as pure as possible, such as described in paragraph [0024] of the '611 publication. O'Donnell et al. continue and state that their

ceramic material should be free of contaminating elements such as transition metals, see paragraph [0024]. The ceramic material described by O'Donnell et al. when applied to a metal substrate does not provide corrosion resistance by sacrificial protection against a corrosive medium. This is because the ceramic material of O'Donnell et al. does not contain a sacrificial particulate metal in suspension in the composition.

7. Based upon my experience and expertise in the field of anticorrosion coatings, the coating compositions set forth in the claims of the present application are not described nor would they be suggested by either of the cited references to Maze et al. or O'Donnell et al., taken singularly or in combination.

8. Furthermore, based upon my experience and expertise in the field of anticorrosion coatings, the coating compositions set forth in the claims of the present application would exhibit superior corrosion resistance as compared to the coating compositions described by either of the cited references to Maze et al. or O'Donnell et al., taken singularly or in combination. The previously noted testing results presented in Tables 10 and 11 of the present application in which the claimed compositions comprise a combination of the recited reinforcement agents in their oxide forms and at least one particulate metal, clearly demonstrate the remarkable anticorrosion properties of coatings formed from the claimed compositions. The coatings described in the cited references to Maze et al. or O'Donnell et al., taken singularly or in combination, would not exhibit such resistance to corrosion.

9. The coatings industry continuously seeks improved anticorrosion coatings, particularly for metal parts, which exhibit excellent corrosion resistance. The coating

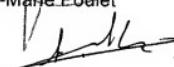
compositions as currently pending in the above captioned application using oxide forms of the particular reinforcing agents in combination with at least one particulate metal, represent a significant advance in the field.

10. The undersigned being warned that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and that such willful false statements and the like may jeopardize the validity of the application or document or any registration resulting therefrom, declares that all statements made of his/her own knowledge are true; and all statements made on information and belief are believed to be true.

06/06/2011  
Date



Jean-Marie Poulet



Alain Chesneau

Date

Carmen Delhalle